

REMARKS/ARGUMENTS

Reexamination and reconsideration of this Application, withdrawal of the rejections, and formal notification of the allowability of all claims as now presented are earnestly solicited in light of the above claim amendments and remarks that follow. Claims 1 and 18 have been amended to more clearly state that the main shaft is rotatable through a partial revolution. Claim 18 has been further amended to more clearly state that the needle rollers move in a predetermined arc of motion. Claims 31-60 have been canceled without prejudice or disclaimer, and Applicants reserve the right to file continuing applications to claim the cancelled subject matter. Claims 1-30 are pending in the present application.

Restriction Requirement

The Examiner has required restriction between Group I (Claims 1-30) and Group II (Claims 31-60). Applicant hereby confirms the provisional election of Group I (Claims 1-30) made by Applicants' representative in the January 11, 2006 telephone conference with the Examiner. Applicants expressly reserve the right to file divisional applications or take such other appropriate measures deemed necessary to protect the inventions in the remaining claims.

The above election is made with traverse as Applicants respectfully submit that searching Group I with Group II would not impose an undue burden on the Examiner. In particular, Applicants submit the Office has failed to recognize common elements present throughout the claims. Group I recites a perforating apparatus. The Examiner alleges Group II recites a method for preparing foam-in-bag cushions. However, the Examiner fails to note that independent claims 42 and 53 recite methods of perforating a foam-in-bag cushion and perforating a plastic film, respectively. Therefore, in searching around the methods of Group II, the Examiner would necessarily be required to search around perforating apparatuses, such as provided in Group I. Accordingly, Applicants respectfully submit it would not be an undue burden on the Examiner to search and examine both Groups I and II together.

Rejections Under 35 U.S.C. §103

Claims 1-13, 15-28, and 30 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,802,945. The Office broadly alleges the '945 patent discloses or suggests the basic claimed apparatus; however, the Office fails to distinctly point out the alleged teaching or suggestion of the '945 patent upon which the Office relies. Accordingly, Applicants traverse the present rejection and respectfully submit the '945 patent in fact fails to teach or suggest the presently claimed invention.

The '945 patent discloses a known arrangement of needle rollers wherein multiple needle rollers (specifically four needle rollers) are mounted in a rotary frame which is fully rotatable about a central axis of the rotary frame. This rotary frame can be rotated so that the desired needle roller is in position for interacting with a brush roller. The addition to the known art provided by the '945 patent is a mechanism to allow the needle roller to be lifted away from the brush roller and placed back on the brush roller without requiring rotary movement of the entire rotary frame. To this end, the apparatus of the '945 patent provides a spring bias on the shaft ends of each needle roller such that the needle roller is biased away from the central axis of the rotary frame and therefore toward the periphery of the rotary frame.

The needle roller biased toward the brush roller is lifted away from the brush roller by asserting a force against the ends of the shaft on which the needle roller is mounted. This force moves the needle roller in a straight line away from the brush roller, compressing the spring. Removal of the force allows the spring to again bias the needle roller toward the brush roller. To achieve this movement, the '945 patent employs a complicated cam system mounted on a lever wedged onto a shaft mounted on the side sections of the rotary frame. On the shaft, two levers are attached with rollers attached to their ends. The rollers interact with the ends of the shafts of the needle rollers. The cam system can be rhythmically set to push the needle roller away from the brush roller and then allow the spring system to bias the needle roller back into position near the brush roller (see column 3, lines 12-30). Applicants respectfully submit this in no way teaches or suggests the presently claimed apparatus.

Claim 1 presently recites an apparatus for perforating an advancing plastic film. The apparatus comprises a frame, a main shaft mounted in the frame so as to be rotatable through a

partial revolution about a central axis of the main shaft, at least one needle roller coupled to the main shaft in radially offset position therefrom, and an actuator coupled with the main shaft. Rotation of the main shaft through a the partial revolution moves the needle roller through a predetermined arc of motion, and the needle roller is arranged to be freely rotatable independently of the rotation of the main shaft. The actuator is operable to rotate the main shaft so as to move the needle roller through the arc of motion such that at one end of the arc of motion, the needle roller is in an operative position, adjacent the advancing film, engaging and perforating the film, and at an opposite end of the arc of motion, the needle roller is in an inoperative position, spaced apart from the advancing film.

Initially, Applicants direct the attention of the Office to Figure 1 of the present application. When compared to the figures provided in the '945 patent, it is particularly clear that the '945 patent does not teach or suggest the presently claimed apparatus. The apparatus of the present invention is characterized by its simple, compact design, which particularly allows the apparatus to be used in connection with a pre-existing apparatus when perforation of a film may be desired. Such is clearly not the case with the '945 patent. Rather, the apparatus disclosed therein is large and bulky and lacks many of the elements of the presently claimed perforation apparatus. As pointed out below, the '945 patent fails to disclose several particularly claimed features of the present apparatus, and the Office has failed to provide any evidence of motivation or suggestion to modify the apparatus of the '945 patent so as to arrive at the presently claimed invention.

For instance, claim 1 specifically recites that rotation of the main shaft through a partial revolution moves the needle roller through a predetermined arc of motion such that at one end of the arc of motion, the needle roller is in an operative position, and at an opposite end of the arc of motion, the needle roller is in an inoperative position. In other words, the needle roller is moved into and out of position through rotation of the main shaft through a partial revolution, and the needle roller moves through an arc of motion.

The Office broadly alleges the '945 patent teaches such an arrangement, specifically pointing to column 3 (lines 25-30). The Office, however, apparently fails to recognize the clear distinctions between the present invention and the disclosure of the '945 patent. Specifically, the

‘945 patent does not teach or suggest a main shaft rotatable through a partial revolution to move a needle roller into and out of an operative position. Further, the ‘945 patent does not teach or suggest a needle roller that moves into and out of an operative position by movement through a predetermined arc of motion.

To the contrary, the ‘945 patent teaches engagement and disengagement of a needle roller via a mechanism that is completely separate from the main shaft. This mechanism involves the use of a complicated cam system, as described above, and requires the addition of multiple components that are not necessary in the presently claimed apparatus. Moreover, as previously noted, the overall apparatus of the ‘945 patent fails to teach or suggest many specific features of the presently claimed apparatus.

First, the apparatus of the ‘945 patent does not teach or suggest a main shaft rotatable through a partial revolution to move a needle roller into and out of an operative position. Rather, the ‘945 patent teaches a “ferris wheel” type arrangement wherein four needle rollers are arranged around the periphery of a circular frame, which has a main shaft extending through the middle thereof. The main shaft is fully rotatable through 360°. Accordingly, the needle rollers attached to the circular frame move in a 360° rotation pattern. This clearly does not teach a main shaft that is limited to rotation through a partial revolution.

Second, movement of the needle roller of the ‘945 patent into and out of contact with the brush roller does not occur over a predetermined arc of motion as presently claimed. Rather, in the ‘945 patent, the needle roller is longitudinally displaced. This is what is actually disclosed at column 3 (lines 25-30) of the ‘945 patent. Engagement of the cam system with the ends of the needle roller shaft longitudinally displaces the needle roller against the spring. When the cam moves through its rotation, the spring again longitudinally moves the needle roller back into connection with the brush roller. In the presently claimed apparatus, the needle roller is coupled to the main shaft such that rotation of the main shaft through its partial revolution moves the needle roller through a predetermined arc of motion. Accordingly, the needle roller does not move longitudinally, as clearly taught in the ‘945 patent.

Third, the ‘945 patent fails to teach or suggest the unique arrangement of the components of the presently claimed apparatus that allow for perforation of a film. According to the present

invention, an actuator is coupled with the main shaft to rotate the main shaft through its partial revolution. This actuation of the main shaft moves the needle roller through its arc of motion, and at one end of the arc the needle roller is in an operative position, adjacent the advancing film, engaging and perforating the film. At an opposite end of the arc, the needle roller is in an inoperative position, spaced apart from the advancing film.

The '945 patent nowhere teaches or suggests such a structure wherein actuation of the main shaft over a partial revolution moves a needle roller through an arc with two ends, one operative and the other inoperative, wherein, in the operative position, an advancing film is being perforated. Rather, the '945 patent requires one method for rotating the main shaft and a second method for moving the needle roller into and out of an operative position. This further emphasizes the distinctiveness of the present invention arising from its compact nature and simplicity of design and operation, and nothing in the '945 patent can be pointed to as teaching or suggesting this unique structure and operation.

Multiple additional features of the presently claimed apparatus are also not taught or suggested by the '945 patent. For example, the '945 patent fails to teach or suggest a needle roller that is coupled to the main shaft by being mounted on a secondary shaft fixedly mounted to the main shaft with a pair of arms, wherein the arms extend radially out from the axis of the main shaft. The Office argues the '945 patent discloses "arm-like structures", but this is simply not the case.

The '945 patent specifically teaches two disks attached to the shaft (column 2, lines 55-56). One of skill in the art would clearly recognize the disclosure of disks to teach flattened, circular pieces with an outer periphery. This is clearly what is taught in the '945 patent as the four needle rollers are attached around the periphery of the disks. Accordingly, the '945 patent can not be characterized as teaching a pair of arms, as presently claimed.

Furthermore, the '945 patent can not be viewed as suggesting a pair of arms, as presently claimed. Nothing in the '945 patent suggests alternate embodiments for the disks, and certainly nothing in the '945 patent suggests replacing the disks taught therein with four pairs of arms. Moreover, the Office has pointed to nothing in the '945 patent that would suggest the basic apparatus thereof could actually accommodate pairs of arms in replacement of the disks taught

therein. Accordingly, Applicants respectfully submit the '945 patent clearly fails to teach or suggest arms, as presently claimed, and the Office has failed to provide any evidence to the contrary.

The Office further alleges it is known to provide a roller with a cover, such as recited in present claim 8. Applicants respectfully submit, however, that such an allegation is insufficient. The Office attempts to argue the present invention is obvious in light of the disclosure of the '945 patent; however, the Office has in no way pointed to any portion of the '945 patent that teaches or suggests a roller cover. Further, the allegation that such would be known in the art is insufficient as the Office has also failed to point to any portion of the '945 patent wherein a suggestion is provided that the apparatus thereof could be modified to accommodate a needle roller cover. Accordingly, Applicants respectfully submit the '945 patent fails to teach or suggest a needle roller cover, and the broad assertion that such is known in the art, without any further showing by the Office, is insufficient.

The Office also argues, in relation to claims 15 and 30, that a statement of intended use, rather than a structural limitation, is provided. Applicants respectfully disagree. The noted claims recite that the apparatus is structured and arranged for attachment to a foam-in-bag cushion production apparatus. As previously noted, the presently claimed apparatus has the advantage of a compact, simple structure making it readily adaptable to multiple types of apparatuses, particularly foam-in-bag cushion production apparatuses. This is a clear distinction from the apparatus of the '945 patent, which is neither compact nor readily adaptable to attachment to an existing apparatus.

Such an argument relating to purpose or intended use generally arises in relation to the preamble of a claim. In such instances, case law clearly dictates that if the recited purpose or intended use results in a structural difference between the claimed invention and the prior art, the recitation serves to limit the claim. See, e.g., *In re Otto*, 312 F.2d 937, 938 (CCPA 1963). Such a ruling would also apply here.

As pointed out above, the fact that the presently claimed apparatus is structured and arranged for attachment to a foam-in-bag cushion production apparatus is a clear structural difference over the apparatus of the '945 patent. Pages 9-10 of the present specification

describe, in detail, how the unique structure of the claimed apparatus is particularly adaptable to a foam-in-bag cushion production apparatus. The apparatus of the '945 patent has a structural arrangement that clearly does not meet the claim requirement. Accordingly, Applicants respectfully submit the compact and adaptable nature of the apparatus, as expressed through the limitation of claims 15 and 30, is a structural distinction over the prior art and can not be discounted by the Office as merely a statement of use.

The distinctiveness of the present apparatus over the apparatus of the '945 patent is further evident in light of the recitation of independent claim 18. Further to the statements provided above, the '945 patent fails to teach or suggest many of the structural elements recited in claim 18. For example, the '945 patent fails to teach or suggest a main shaft mounted so as to be rotatable through a partial revolution. The '945 patent also fails to teach or suggest that rotation of the main shaft through the partial revolution moves the needle rollers in a predetermined arc of motion between operative and inoperative positions. Each of these distinctions has been described in detail above.

In addition to these distinctions, the '945 patent specifically fails to teach or suggest an apparatus comprising tertiary shafts cantilevered off each frame plate and having free ends. Moreover, the '945 patent clearly fails to teach or suggest backup rollers mounted on such cantilevered tertiary shafts.

The Office broadly argues the '945 patent teaches the presence of backup rollers. Nothing in the '945 patent, however, teaches the specific structure presently claimed. More precisely, the '945 patent in no way teaches or suggests tertiary shafts cantilevered off of the frame plates with backup rollers mounted on the tertiary shafts. This is a specific structural arrangement, and the Office can not summarily dismiss the distinctive nature of the structure by mere allusion to a brush roller in the '945 patent. To this end, the Office has failed to point to any teaching or suggestion in the '945 patent of a cantilevered tertiary shaft upon which a backup roller is mounted.

In light of the above statements, Applicants respectfully submit the '945 patent fails to teach or suggest the presently claimed invention. Applicants have pointed to multiple claimed elements that are not specifically taught or suggested by the '945 patent, and the Office has

failed to point to any further teaching that, when combined with the '945 patent, would make the presently claimed apparatus obvious. Accordingly, Applicants respectfully request reconsideration and withdrawal of the present rejection.

Claims 14 and 29 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the '945 patent in view of U.S. Patent No. 5,105,227. The Office argues the '227 patent discloses incorporating a rotary solenoid into a structure for moving a roller. Applicants respectfully traverse the present rejection.

First, Applicants respectfully submit the Office has failed to show proper motivation for combining the cited references. The '945 patent is directed to a needle roller arrangement for perforating a material web. The '227 patent is directed to an apparatus for supplying paper to a printer. The Office has provided no concrete reasoning that would lead a skilled artisan seeking to modify the '945 patent to the teaching of the '227 patent. Moreover, the Office has pointed to nothing in the '945 patent that would suggest seeking out a rotary solenoid. Accordingly, Applicants respectfully submit the Office has failed to show proper motivation for combining the cited references.

Second, even if the references are properly combined, which Applicants obviously do not admit, the combination of the cited references still does not teach or suggest the presently claimed invention. The Office argues a skilled artisan would take the rotary solenoid from the '227 patent and incorporate it into the apparatus of the '945 patent to replace the hand crank. The present application recites the use of a rotary solenoid to rotate the main shaft through a partial revolution and thereby move the needle roller through a predetermined arc, into and out of an operative position. The cam system of the '945 patent moves the needle roller into and out of the operative position. Accordingly, incorporation of the solenoid into the '945 patent, as asserted by the Office, still would not provide an apparatus as presently claimed.

Further to the above, the combination of the '227 patent still fails to solve the deficiencies of the '945 patent, as described above. For instance, the combination of the cited references still fails to teach or suggest the following: a main shaft mounted in the frame so as to be rotatable through a partial revolution; at least one needle roller coupled to the main shaft such that rotation of the main shaft through the partial revolution moves the needle roller through a predetermined

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arc of motion; an actuator operable to rotate the main shaft through a partial revolution so that at one end of the arc of motion, the needle roller is in an operative position, adjacent an advancing film, and at an opposite end of the arc of motion is in an inoperative position, spaced apart from the film; and tertiary shafts with free ends cantilevered off of frame plates and having backup rollers mounted thereon. Accordingly, Applicants respectfully request reconsideration and withdrawal of the present rejection.

Applicant respectfully submits that all claims, as now submitted, are in condition for immediate allowance. Accordingly, a Notice of Allowance is respectfully requested in due course. If any minor formalities need to be addressed, the Examiner is directed to contact the undersigned attorney by telephone to facilitate prosecution of this case.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR §1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

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Ryan W. Cagle
Registration No. 47,468

Customer No. 00826
ALSTON & BIRD LLP
Bank of America Plaza
101 South Tryon Street, Suite 4000
Charlotte, NC 28280-4000
Tel Raleigh Office (919) 862-2200
Fax Raleigh Office (919) 862-2260

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